



Piping Plover

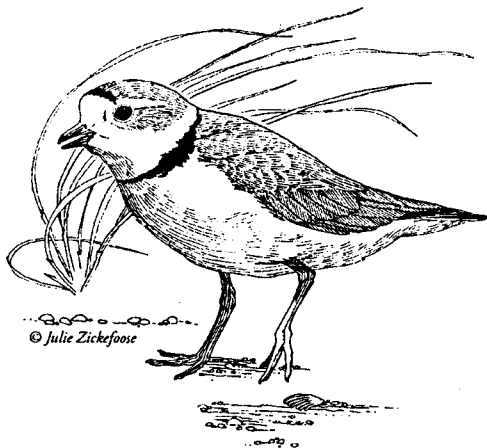
(*Charadrius melodus*)

U.S. FISH AND WILDLIFE SERVICE • MONOMOY NATIONAL WILDLIFE REFUGE

Piping plovers have been described as everything from wind-up toys to cotton balls with legs rolling along the sandy beaches of the coast. Sometimes they blend into the beach so thoroughly that they are almost impossible to see. Like other plovers, they run in short starts and stops.

The piping plover's name comes from its call-notes, plaintive bell-like whistles that are often heard before the birds are seen. When sitting still, their buff-colored plumage, black necks, and black forehead bands make them virtually invisible in the sand. From a distance, the scrapes in the sand that are their nests and their buff-colored eggs speckled with tiny black dots are indistinguishable from the beach.

Although these adaptations help protect plovers from natural predators, they do not protect them from human activities, which have become the greatest threat to their survival. Beach recreation and shoreline development such as dune stabilization, summer homes, and road construction have reduced essential wintering, migration, and breeding habitat in the Northeast.



Human disturbance, such as beach walkers who inadvertently flush incubating parents from the nests or vehicles that crush nests, eggs, and chicks, is a great threat to the piping plover's survival and, along with habitat degradation and predation, is responsible for the present precarious state of the species. Human development and recreational use on and near beaches attract predators — agile mammals such as fox, raccoon, and mink, as well as gulls, which pose a serious threat to plover chicks.

The remaining habitat has become critical for the continued survival of the piping plover on the Atlantic Coast. Biologists have identified Monomoy National Wildlife Refuge as having some of the best available habitat for piping plovers in Massachusetts, capable of supporting 94 pairs. However, only 20 pairs nested on the refuge in 1996.

Plover life

The Atlantic Coast piping plover population breeds on coastal beaches from Newfoundland to North Carolina. Piping plovers winter primarily on the Atlantic Coast from the Carolinas to Florida, but also as far south as the Yucatan Peninsula, the Bahamas, and the West Indies. Between March and April, piping plovers make the long flight from these wintering grounds to the beaches of the mid- and north Atlantic. They establish territories on these beaches, mate, and scratch out shallow nests, which they line with pebbles or shells, in the unvegetated sand above the high tide line.

Adults, especially males, tend to return to beaches where they previously nested, arriving at breeding grounds in late March and early April. Mating involves courtship displays that include mock nest scraping, pebble-tossing, tilts, and low, shallow flights. The male and the female both share incubation responsibilities. Their three or four eggs hatch after approximately 28 days, and the hatchlings soon follow their parents to forage for marine worms, crustaceans, and insects on the beach. Once the hatchlings emerge, it generally takes about 25 to 35 days for them to learn to fly. If a predator or intruder approaches, the young become motionless while their parents try to divert the intruder's attention to themselves, often by pretending to hobble around with a broken wing.

Plovers in trouble

Historically, piping plovers were abundant in sandy coastal habitat throughout their range. By the late 1800s, commercial hunting for feathers — primarily to decorate hats — nearly wiped out piping plovers and other shorebird species. Federal protection by the Migratory Bird Treaty Act of 1918 allowed piping plovers to recover to 20th century record numbers by the 1940s, but recent habitat loss and

disturbance on beaches have caused a new and serious decline in their population. In 1996, an estimated 1,350 pairs of piping plovers nested on the Atlantic Coast, 454 of them in Massachusetts. Two other breeding populations exist in the United States: one on the Great Plains and the other in the Great Lakes region.

The piping plover came under the protection of the Endangered Species Act in 1986 when the Atlantic Coast population was listed as threatened. Without this protection, the remaining population would continue to decline, likely becoming endangered and facing possible extinction in the near future.

Competition for habitat

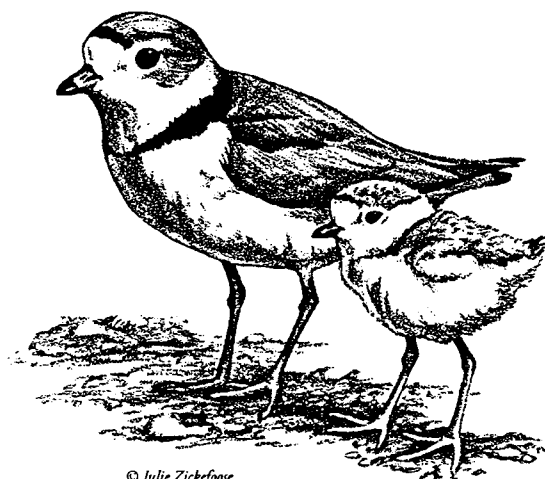
The major factor limiting piping plover numbers on Monomoy is competition for habitat with herring and great black-backed gulls. Gulls also interfere with plovers as they attempt to establish territories and conduct courtship activities. These gulls may also attack piping plover nests and eat eggs and chicks.

Current populations and distribution of herring and great black-backed gulls exploded beyond their historical levels in recent decades due primarily to the availability and abundance of human-generated food sources such as landfills and fish

An endangered species is in danger of extinction; a threatened species is likely to become endangered within the foreseeable future.

industry waste. The rapid growth of herring and great black-backed gull populations on Monomoy reflects the growth of Cape Cod's year-round human population and increased development during the past 30 years.

The challenge facing wildlife managers remains: How do we help this species regain a healthy population in an altered and fragmented environment? Increasing and maintaining the piping plover populations along the Atlantic Coast will require making difficult choices, such as closing beaches and controlling predatory animals. Public land managers, private landowners, and beach users need to work together in a continuing commitment to help the piping plover recover from the brink of extinction.



Monomoy National Wildlife Refuge, established in 1944 and managed by the U.S. Fish and Wildlife Service, provides habitat for a diversity of bird species, including those protected by the Endangered Species Act. To find out more about piping plovers, roseate terns, the Endangered Species Act, or the refuge, call the refuge headquarters at (508) 945-0594 or write to:

Monomoy National Wildlife Refuge
Wikis Way
Chatham, MA 02633

U.S. FISH AND WILDLIFE SERVICE

The U.S. Fish and Wildlife Service provides the federal leadership to conserve, protect and enhance fish and wildlife resources and their habitat for the continuing benefit of people.

The Service manages more than 500 national wildlife refuges, representing the most comprehensive wildlife habitat management effort in the world. The Service also manages national fish hatcheries, enforces federal wildlife laws and international treaty obligations, and provides leadership in habitat protection.

National resources entrusted to the Service for conservation and protection are: refuges, migratory birds, fishery resources, threatened and endangered species, wetland resources, and certain marine mammals.

The Service's Northeast Region encompasses 13 states from Maine to Virginia with more than 100 field offices. Headquarters for the region is located in Hadley, Massachusetts.